TRANSGENIC MICE EXPRESSING FLUORESCENT PROTEIN IN MULTIPOTENT STEM AND PROGENITOR CELLS

ABSTRACT OF THE DISCLOSURE

Non-human transgenic mammals are produced which have, incorporated in their genome, DNA which includes a regulatory sequence of a mammalian nestin gene, operably linked to a gene coding for a marker/reporter protein. The regulatory sequence can include a promoter and a sequence present in the second intron of the mammalian nestin gene. Preferably, the marker/reporter protein is a fluorescent protein, for example a green fluorescent protein, modified for enhanced fluorescence. Multipotent and, in particular, neural stem and progenitor cell populations are observed in the organs of the non-transgenic mammal or progeny thereof. Multipotent stem and progenitor cells are isolated directly from the non-human transgenic mammal, progeny or embryo thereof, for example by FACS, without culture passages.